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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Simon D. Scott

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EXAMINER

RUTLEDGE, AMELIA L

ART UNIT

PAPER NUMBER

2176

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DELIVERY MODE

09/11/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,078	<b>Applicant(s)</b> SCOTT ET AL.	
	<b>Examiner</b> AMELIA RUTLEDGE	<b>Art Unit</b> 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-12, and 14-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/12/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is responsive to the following communications: Amendment, filed 06/23/2009; Information Disclosure Statement, filed 03/12/2009.
2. Claims 1, 2, 4-12, and 14-25 are pending. Claims 1, 11, 21, and 23 are independent claims.
3. The Amendment to the Specification filed 06/23/2009 has been received in the application file and will be entered.
4. The amendment to claim 25 overcomes the rejection of claim 25 under 35 U.S.C. 101.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1, 2, 4-10, 21, and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

**Regarding independent claim 1**, claim 1 recites in part, *an apparatus comprising: a computer system configured to automatically adapt web page content for display on an intended display device, said computer including an adaptation module...* The claimed "computer system" and "adaptation module" for the claimed apparatus is not limited in the specification to a statutory category of invention, because it is possible for the disclosed meant to cover an embodiment of software alone.

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While claim 1 recites an "intended display device" which is an element of computer hardware, the claim recites adapting web page content "for display" on the device, therefore the claim does not necessarily require the use of computer hardware, and therefore is directed to non-statutory subject matter, although an intended use with computer hardware is recited.

**Regarding dependent claims 2 and 4-10**, claims 2-10 are rejected because they add no limitations which would render the claimed subject matter statutory.

**Regarding independent claim 21**, claim 21 recites, in part; *an apparatus for adapting web page content for display on a device whose display is sufficiently smaller than the originally intended display size of the web page for the content of the web page to require splitting over a plurality of pages on the display of the device,*

*the apparatus comprising: means arranged to integrate the process of splitting the content with applying transformations....* While claim 21 recites a computer-implemented apparatus, the claimed "computer-implemented module" for the claimed apparatus is not limited in the specification to a statutory category of invention, because it is possible for the disclosed meant to cover an embodiment of software alone.

The phrase "computer-implemented" does not impose a meaningful limit on the claim's scope, rather it is a field of use limitation.

While claim 21 recites a "device" which is an element of computer hardware, the claim recites adapting web page content "for display" on the device, therefore the claim does not necessarily require the use of computer hardware and as such is directed to

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non-statutory subject matter, although an intended use with computer hardware is recited.

**Regarding dependent claim 22**, claim 22 is rejected because they add no limitations which would render the claimed subject matter statutory.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 2, 4-12, and 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanevsky, U.S. Patent No. 6,300,947 B1, issued October 2001, in view of Huttunen, U.S. Pub. No. 2003/0069881 A1, published April 2003.**

**Regarding independent claim 1**, Kanevsky teaches *an apparatus comprising: a computer system to automatically adapt web page content for display on an intended display device, said computer system including an adaptation module configured to split the content into a plurality of smaller web pages for display on said device, the adaptation module being configured in use to: (i) split the content into a plurality of content portions, and to iteratively repeat the following steps (ii) to (v) for at least one of the content portions*; because Kanevsky discloses folding the content of web pages depending on the size of a screen or window of an intended display device (col. 1, l. 57-

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col. 3, l. 52; col. 4, l. 55-col. 5, l. 19). Kanevsky discloses repeating iteratively a set of steps for the content portions, because Kanevsky teaches a method of adapting web pages for categories of screens with sizes different from the original design of the data (col. 8, l. 2-15; col. 8, l. 35-col. 9, l. 45).

Kanevsky discloses the step of *(ii) analyze the content to determine whether the size of the content portion is suitable for display on said device*; because Kanevsky discloses a semantic interpreter module to analyze and split the web page into a size suitable for the display device (col. 3, l. 1-67). Kanevsky teaches searching for an optimal match (compare to step ii), and if a match is not found, using a web page adaptation module to fold web pages into several pages, and strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

Kanevsky discloses the step of *(iii) if the size of the content portion is not suitable for display on said device, then apply at least one content transformation to the content portion*; because Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (compare to step iii) (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

Kanevsky suggests but does not explicitly disclose *(iv) analyze the transformed content to determine whether the size of the transformed content portion is suitable for display on said device*;

*(v) if the size of the transformed content portion is not suitable for display on said device then split the content portion into a plurality of further content portions, however,*

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Huttunen teaches dynamic partitioning of web document content, based on partitioning rules such as the requirements of the user device (p. 4, par. 0038-0042). Huttunen teaches dynamic, i.e., iterative, partitioning of the nodes of the document based on a threshold, incorporating the steps (iv) and (v) (p. 4, par. 0038-0042; par. 0080-0088).

Kanevsky teaches *wherein if the size of the transformed content portion is suitable for display on said device, then the adaptation module is configured to combine said transformed content portion with a further content portion split from the same parent content portion to form a combined content portion*, because Kanevsky teaches that web pages may be expanded, with objects and links added, if the user display size is greater than the display size needed for displaying web pages, i.e., forming a combined content portion (col. 10, l. 35-51; col. 10, l. 66-col. 11, l. 24).

On the other hand, if the display size is smaller, Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the dynamic partitioning method disclosed by Huttunen to the web page adaptation module disclosed by Kanevsky, because Huttunen disclosed that substitutions in the methods of partitioning could be made to perform substantially the same function in substantially the same way, to achieve the same results (Huttunen, par. 0122), and since Kanevsky disclosed modules which were implemented as Finite State Automata, one of the simplest computing machines, disclosed by Kanevsky as

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well known in the art, which were adaptable to different methods (Kanevsky, col. 2, l. 49-19), therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosed modules and methods to achieve predictable results.

**Regarding dependent claim 2**, Kanevsky teaches *wherein steps (ii) and (iv) are performed by said adaptation module to determine whether the size is suitable comprise determining whether the content is small enough for display on said device*, because Kanevsky discloses a semantic interpreter module to analyze and split the web page into a size suitable for the display device smaller than the content (col. 3, l. 1-67).

**Regarding dependent claim 4**, Kanevsky teaches *wherein the adaptation module is further configured in use to: analyze said combined content to determine whether the size of the combined content portion is suitable for display on said device, and if the size of the combined content portion is too large for said device then apply at least one content transformation to the combined content portion*; because Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

**Regarding dependent claim 5**, Kanevsky teaches *wherein combining of two content portions comprises selecting the further content portion from the store, the adaptation module being further configured to: analyze the content to determine whether the size of the transformed combined content portion is suitable for display on said device, and if the size of the transformed combined content portion is too large for*



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*said device then break up said combined content portion so as to return the further content portion back into said store; because Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).*

**Regarding dependent claim 6**, Kanevsky teaches *if the size of the transformed combined content portion is small enough for display on said device then combine it with a second content portion split from the same parent content portion*, because Kanevsky discloses folding the content of web pages depending on the size of a screen or window of an intended display device (col. 1, l. 57-col. 3, l. 52; col. 4, l. 55-col. 5, l. 19).

Kanevsky discloses repeating iteratively a set of steps for the content portions, because Kanevsky teaches a method of adapting web pages for categories of screens with sizes different from the original design of the data (col. 8, l. 2-15; col. 8, l. 35-col. 9, l. 45), based on the size of the display device.

**Regarding dependent claim 7**, Kanevsky teaches *analysis module configured in use to translate the web page content into a hierarchical tree format comprising a plurality of nodes labelled so as to represent suitable locations for splitting the content into smaller web pages*. Kanevsky discloses translating the web page into a hierarchical decision tree format to represent suitable locations for splitting the content into smaller web pages (col. 3, l. 20-52).

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**Regarding dependent claim 8**, Kanevsky teaches *wherein the adaptation module further comprises a store for content portions, and said splitting of content to form smaller content portions comprise adding a plurality of content portions into the store*. Kanevsky discloses, for example, storing adapted web page data associated with user defined shell sizes (col. 17, l. 22-col. 18, l. 19).

**Regarding dependent claim 9**, Kanevsky teaches *wherein the adaptation module comprises: a transformations store for storing a record of transformations which have been applied to content together with an indication of the type of content to which those transformations have been applied to*, because Kanevsky teaches constructing a new URL for a new smaller window or display size (col. 9, l. 46-col. 10, l. 35). Kanevsky also inherently discloses a transformations store for storing a record of transformations, because Kanevsky teaches storing transformations in modules (col. 10, l. 52-col. 11, l. 14).

**Regarding dependent claim 10**, Kanevsky teaches *apply content transformations according to the record of transformations to the further content portion so as to consistently apply transformations to the same type of content as indicated in the record of transformations*. Kanevsky teaches constructing a new URL for a new smaller window or display size (col. 9, l. 46-col. 10, l. 35). Kanevsky also inherently discloses a transformations store for storing a record of transformations, because Kanevsky teaches storing transformations in modules (col. 10, l. 52-col. 11, l. 14).

**Regarding independent claim 11 and dependent claims 12 and 14-20**, claims 11-20 are directed to the methods which are implemented by the apparatus as claimed in claims 1-10, above, and are rejected along the same rationale.

**Regarding independent claim 21**, Kanevsky discloses *an automated computer-implemented apparatus configured to adapt web page content for display on a device whose display is sufficiently smaller than the originally intended display size of the web page for the content of the web page to require splitting over a plurality of pages on the display of the device*, because Kanevsky discloses folding the content of web pages depending on the size of a screen or window of an intended display device (col. 1, l. 57-col. 3, l. 52; col. 4, l. 55-col. 5, l. 19). Kanevsky discloses repeating iteratively a set of steps for the content portions, because Kanevsky teaches a method of adapting web pages for categories of screens with sizes different from the original design of the data (col. 8, l. 2-15; col. 8, l. 35-col. 9, l. 45).

Kanevsky discloses *the apparatus comprising: a computer-implemented module configured to automatically integrate the process of splitting the content with applying transformations by recursively splitting the content into smaller and smaller portions while simultaneously applying different transformations so as to minimise the amount of white space visible on the smaller pages*; because Kanevsky discloses a semantic interpreter module to analyze and split the web page into a size suitable for the display device (col. 3, l. 1-67). Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, and strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

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Kanevsky teaches applying transformations to minimize the amount of white space on the smaller pages (col. 15, l. 12-col. 16, l. 10).

While Kanevsky discloses splitting content, Kanevsky does not explicitly teach recursion. However, Huttunen teaches dynamic partitioning of web document content, based on partitioning rules such as the requirements of the user device (p. 4, par. 0038-0042). Huttunen teaches dynamic, i.e., recursive, partitioning of the nodes of the document based on a threshold, incorporating the steps (iv) and (vi) (p. 4, par. 0038-0042; par. 0080-0088).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the dynamic partitioning method disclosed by Huttunen to the web page adaptation module disclosed by Kanevsky, because Huttunen disclosed that substitutions in the methods of partitioning could be made to perform substantially the same function in substantially the same way, to achieve the same results (Huttunen, par. 0122), and since Kanevsky disclosed modules which were implemented as Finite State Automata, one of the simplest computing machines, disclosed by Kanevsky as well known in the art, which were adaptable to different methods (Kanevsky, col. 2, l. 49-19), therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosed modules and methods to achieve predictable

**Regarding dependent claim 22**, while Kanevsky does not explicitly teach the limitations of claim 22, Huttunen teaches *means for tracking the transformations which have been applied to each smaller portion, and means for ensuring consistency by applying the same transformations to any similar portions of the web-page content.*

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Huttunen teaches tracking user preferences for transformations of document fragments, for example, to ensure consistency in applying the same transformations (par. 0118).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the dynamic partitioning method disclosed by Huttunen to the web page adaptation module disclosed by Kanevsky, because Huttunen disclosed that substitutions in the methods of partitioning could be made to perform substantially the same function in substantially the same way, to achieve the same results (Huttunen, par. 0122), and since Kanevsky disclosed modules which were implemented as Finite State Automata, one of the simplest computing machines, disclosed by Kanevsky as well known in the art, which were adaptable to different methods (Kanevsky, col. 2, l. 49-19), therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosed modules and methods to achieve predictable

**Regarding independent claim 23 and dependent claim 24**, claims 23 and 24 are directed to the methods which are implemented by the apparatus as claimed in claims 21 and 22, above, and are rejected along the same rationale.

**Regarding dependent claim 25**, Kanevsky teaches a computer-readable medium containing a computer program or suite of programs which, when executed by a computer system, cause the system to perform the method of claim 11 (col. 7, l. 10-56).

### ***Response to Arguments***

Applicant's arguments filed 06/23/2009 have been fully considered but they are not persuasive.

Applicant argues that the rejections of claims 1, 2, 4-10, 21, and 22 under 35 U.S.C. 101 are traversed (Remarks, p. 15-16) however, given the broadest reasonable interpretation of the claimed invention in light of the specification, the claimed invention may be interpreted as being directed to software *per se*. For example, regarding claim 1, the claimed "computer system" and "adaptation module" for the claimed apparatus is not limited in the specification to a statutory category of invention, because it is possible for the disclosed meant to cover an embodiment of software alone.

Applicant argues that " 'Software' does not have a meaningful existence 'alone.' " (Remarks, p. 16, par. 1). It is for exactly this reason that the above claims are rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter. The implied use of computer hardware, or a requirement for computer hardware in some embodiments but not all embodiments, is not sufficient to overcome the rejections under 35 U.S.C. 101. Modules, and computer systems may be interpreted as being directed to software *per se*, and as such must be rejected as non-statutory.

Applicant argues the rejections of claims 1, 2, 4-12, and 14-25 under 35 U.S.C. 103(a) as being unpatentable over Kanevsky, in view of Huttunen (Remarks, p. 17-19).

Applicant argues that the figures disclosed by Kanevsky are not equivalent to the claimed invention, in particular the newly claimed limitation *...wherein if the size of the transformed content portion is suitable for display on said device, then the adaptation*

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*module is configured to combine said transformed content portion with a further content portion split from the same parent content portion to form a combined content portion,* (Claim 1). However, Kanevsky teaches that web pages may be expanded, with objects and links added, if the user display size is greater than the display size needed for displaying web pages, i.e., forming a combined content portion (col. 10, l. 35-51; col. 10, l. 66-col. 11, l. 24).

On the other hand, if the display size is smaller, Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

Applicant does not argue the cited portions of Kanevsky, which provide details of implementation not present in the drawings.

Because Kanevsky in view of Huttunen discloses each and every limitation of the claimed invention, the claim rejections should be maintained.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMELIA RUTLEDGE whose telephone number is (571)272-7508. The examiner can normally be reached on Monday - Friday 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amelia Rutledge/  
Primary Examiner, Art Unit 2176